

Egosi describes an egg conveyor comprising a series of egg carriers 80 (Figure 5). Each egg carrier 80 includes fingers such as 84 for gripping one egg in a vertical position. Since the eggs are in a vertical position, the dispensing means such as 56b is disposed sidewise with respect to the gripping fingers such as 84 to apply an advertisement on the longitudinal face of the eggs upon passage of these eggs past the dispensing means 56b.

As indicated in column 4, lines 23-32:

"Advertisement dispensing means 56 may comprise an ink jet type printer such as WILLET PRINTOS 1600, sold by Willett International Limited, Dawson House 24, Ladbrooke Road, Chalvey, Slough, England. This is a conventional ink jet printer as used in dot matrix printing systems. The dispensing means may also comprise a WILLETT LABELJET 2300 also sold by the last mentioned company. In this system, a preprinted pressure sensitive label is supplied by blowing air against the label to move into contact with an object."

In Egosi, the advertisement or the label has to be applied to the longitudinal face of the egg between the fingers 84 of the egg carriers 80. Application of a label to an egg through the fingers 84 is not only troublesome but also requires high precision in the application of the label since any positional shift would cause application of the label to both the egg and finger to thereby attach the egg to the finger.

To overcome this deficiency of Egosi, the present invention proposes a system for applying the label to an unobstructed longitudinal bottom face of the eggs. More specifically, as defined in claim 18 and 19, the eggs are suspended conveyed by a series of downwardly projecting egg grippers structured to leave a bottom longitudinal

face of the suspended eggs unobstructed for application of a label. A labelling device comprises a label applying member located beneath the series of egg grippers whereby, in operation, the label applying member applies labels to the unobstructed bottom longitudinal faces of the eggs suspended from the series of downwardly projecting egg grippers upon passage of said eggs about the label applying member.

The features of leaving a bottom longitudinal face of the suspended eggs unobstructed for application of a label, and using a label applying member located beneath the series of egg grippers to apply labels to the unobstructed bottom longitudinal faces upon passage of the eggs are believed to patentably distinguish the present invention over Egosi.

Brooks discloses a high speed labeller which, as shown in Figure 1, applies labels to the top face of fruits. It is respectfully submitted that, without inventive ingenuity, Brooks can only teach Egosi to replace Egosi's advertisement dispensing means 56 of Figure 1 of US Patent No. 4,843,958 by Brooks' high speed labeller to apply labels on the top face of the eggs.

Therefore, it is respectfully submitted that inventive ingenuity is required to overcome the deficiencies of Egosi and Brooks, taken separately or in combination, by first using a conveyor with a series of downwardly projecting egg grippers structured to expose a bottom longitudinal face of the eggs and to dispose a label applying member thereunder to apply labels to this unobstructed bottom longitudinal face.

The other sub-claims are dependent upon an allowable independent claim and are therefore believed to be allowable in the present patent application. Although no arguments are presented herein regarding the objections raised against claims 2-17, this should not be construed as an admission that these claims contain no patentable subject matter.

In view of the above amendments and remarks, early reconsideration of the present patent application is respectfully requested.

GP/cm

Respectfully submitted,



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VERSION WITH MARKINGS**IN THE CLAIMS:**

Please cancel claims 1 and 2 without prejudice,

Claim 1. (Deleted) An in-line egg labelling system for applying a label on eggs travelling into grippers of a conveyor, said system comprising at least one labelling device mounted beneath said conveyor and provided with a label applying arm for applying a label on an exposed area of the surface of said eggs.

Claim 2. (Deleted) An in-line egg labelling system as recited in claim 1, wherein said exposed egg surface area is facing generally downwards.

and insert the new following independent claims 18 and 19.

New claim 18. An in-line egg labelling system for applying labels to eggs travelling on a conveyor, wherein:

- said eggs each comprise a longitudinal axis;
- said conveyor comprises a series of downwardly projecting egg grippers for suspending the eggs with the longitudinal axis of said eggs generally horizontal;
- said egg grippers are structured to leave a bottom longitudinal face of the suspended eggs unobstructed for application of a label;

and wherein the in-line egg labelling system comprises at least one labelling device itself comprising:

a label applying member located beneath the series of egg grippers whereby, in operation, the label applying member applies labels to the unobstructed bottom

longitudinal faces of the eggs suspended from the series of downwardly projecting egg grippers upon passage of said eggs about the label applying member.

New claim 19. An in-line egg labelling system, comprising:
a conveyor comprising:

a series of downwardly projecting egg grippers for suspending the eggs with a longitudinal axis of said eggs generally horizontal, wherein the egg grippers are structured to leave a bottom longitudinal face of the suspended eggs unobstructed for application of a label; and

at least one labelling device comprising:

a label applying member located beneath the series of egg grippers whereby, in operation, the label applying member applies labels to the unobstructed bottom longitudinal faces of the eggs suspended from the series of downwardly projecting egg grippers upon passage of said eggs about the label applying member.

Please amend claims 3-10, 12, 16 and 17 as follows:

Claim 3. (Amended) An in-line egg labelling system as recited in claim 4 19 wherein said conveyer is part of an egg packing and grading system comprising a controller and wherein means for displacing each travelling egg has toward a given destination.

Claim 4. (Amended) An in-line egg labelling system as recited in claim 3 further comprising a computerised labelling control system and a user interface for the an automatic individual selection of the eggs to be labelled on the basis of at least one user set parameter and at least one input parameter communicated by said controller.

Claim 5. (Amended) An in-line egg labelling system as recited in claim 4, wherein ~~said at least one~~ the controller comprises means for generating an input parameter indicative of a destination for of each travelling egg.

Claim 6. (Amended) An in-line egg labelling system as recited in claim 4, wherein ~~said at least one~~ comprising means for generating a user set parameter comprises a parameter specifying for which destinations eggs are to be labelled.

Claim 7. (Amended) An in-line egg labelling system as recited in claim 4, wherein ~~said at least one~~ comprising means for generating a first user set parameter comprises a first parameter specifying for which destinations eggs are to be labelled, and means for generating a second user set parameter specifying a desired ratio for the number of labelled eggs/number of packed eggs at a destination.

Claim 8. (Amended) An in-line egg labelling system as recited in claim 4, wherein ~~said computerised labelling control system and user interface further perform generation and output of~~ comprise means for generating and outputting statistical data about labelling activities carried out by the labelling system.

Claim 9. (Amended) An in-line egg labelling system as recited in claim 4 19, further comprising at least one sensing device for ~~travelling egg position monitoring the position of eggs travelling on the conveyor.~~

Claim 10. (Amended) An in-line egg labelling system as recited in claim 4 19, further comprising an egg surface drying device.

Claim 12. (Amended) An in-line egg labelling system as recited in claim 4 18, wherein ~~said at least one labelling system further device~~ comprises at least one a label smoothing device for applying a slight pressure on applied labels to promote adhesion

and proper conforming of labels to ~~egg surfaces~~ the bottom longitudinal faces of the eggs.

Claim 16. (Amended) An in-line egg labelling system as recited in claim 4 19, wherein said conveyer comprises two parallel longitudinal rows of egg grippers and said labelling system comprises two labelling devices, each ~~one being~~ dedicated to the labelling of eggs ~~transported by a specific row~~ suspended from one of the two parallel rows of grippers.

Claim 17. (Amended) An in-line egg labelling system as recited in claim 4 19, wherein said conveyer comprises three parallel longitudinal rows of egg grippers and said labelling system comprises three labelling devices, each ~~one being~~ dedicated to the labelling of eggs ~~transported by a specific row~~ suspended from one of said three parallel rows of grippers.

Claims 11 and 13-15 are without change.

Claim 11. (Without change) An in-line egg labelling system as recited in claim 10, wherein said drying device comprises an air stream generating device.

Claim 13. (Without change) An in-line egg labelling system as recited in claim 12, wherein said label smoothing device comprises a brush member.

Claim 14. (Without change) An in-line egg labelling system as recited in claim 12, wherein said label smoothing device comprises a roller member.

Claim 15. (Without change) An in-line egg labelling system as recited in claim 12, wherein said label smoothing device comprises at least one air jet.

NEW VERSION OF CLAIMS

1. An in-line egg labelling system for applying labels to eggs travelling on a conveyor, wherein:

- said eggs each comprise a longitudinal axis;
- said conveyor comprises a series of downwardly projecting egg grippers for suspending the eggs with the longitudinal axis of said eggs generally horizontal;
- said egg grippers are structured to leave a bottom longitudinal face of the suspended eggs unobstructed for application of a label;

and wherein the in-line egg labelling system comprises at least one labelling device itself comprising:

a label applying member located beneath the series of egg grippers whereby, in operation, the label applying member applies labels to the unobstructed bottom longitudinal faces of the eggs suspended from the series of downwardly projecting egg grippers upon passage of said eggs about the label applying member.

2. An in-line egg labelling system as recited in claim 1, wherein said at least one labelling device comprises a label smoothing device for applying a slight pressure on applied labels to promote adhesion and proper conforming of labels to the bottom longitudinal faces of the eggs.

3. An in-line egg labelling system as recited in claim 2, wherein said label smoothing device comprises a brush member.

4. An in-line egg labelling system as recited in claim 2, wherein said label smoothing device comprises a roller member.

5. An in-line egg labelling system as recited in claim 2, wherein said label smoothing device comprises at least one air jet.

6. An in-line egg labelling system, comprising:
a conveyor comprising:

a series of downwardly projecting egg grippers for suspending the eggs with a longitudinal axis of said eggs generally horizontal, wherein the egg grippers are structured to leave a bottom longitudinal face of the suspended eggs unobstructed for application of a label;

at least one labelling device comprising:

a label applying member located beneath the series of egg grippers whereby, in operation, the label applying member applies labels to the unobstructed bottom longitudinal faces of the eggs suspended from the series of downwardly projecting egg grippers upon passage of said eggs about the label applying member.

7. An in-line egg labelling system as recited in claim 6, wherein said conveyer is part of an egg packing and grading system comprising a controller and means for displacing each egg toward a given destination.

8. An in-line egg labelling system as recited in claim 7, further comprising a computerised labelling control system and a user interface for an automatic individual selection of the eggs to be labelled on the basis of at least one user set parameter and at least one input parameter communicated by said controller.

9. An in-line egg labelling system as recited in claim 8, wherein the controller comprises means for generating an input parameter indicative of a destination of each egg.

10. An in-line egg labelling system as recited in claim 8, comprising means for generating a user set parameter specifying for which destinations eggs are to be labelled.

11. An in-line egg labelling system as recited in claim 8, comprising means for generating a first user set parameter specifying for which destinations eggs are to be labelled, and means for generating a second user set parameter specifying a desired ratio for the number of labelled eggs/number of packed eggs at a destination.

12. An in-line egg labelling system as recited in claim 8, wherein said computerised labelling control system and user interface further comprise means for generating and outputting statistical data about labelling activities carried out by the labelling system.

13. An in-line egg labelling system as recited in claim 6, further comprising at least one sensing device for monitoring the position of eggs travelling on the conveyor.

14. An in-line egg labelling system as recited in claim 6, further comprising an egg surface drying device.

15. An in-line egg labelling system as recited in claim 14, wherein said drying device comprises an air stream generating device.

16. An in-line egg labelling system as recited in claim 6, wherein said conveyor comprises two parallel longitudinal rows of egg grippers and said labelling system comprises two labelling devices each dedicated to the labelling of eggs suspended from one of the two parallel rows of grippers.

17. An in-line egg labelling system as recited in claim 6, wherein said conveyer comprise three parallel longitudinal rows of egg grippers and said labelling system comprise three labelling devices each dedicated to the labelling of eggs suspended from one of said three parallel rows of grippers.